

**TITLE: DSP-15 DUAL-SPECIFICITY PHOSPHATASE**  
**Inventors: Ralf M. Luche et al. Docket No. 200125.433**  
**EXPRESS MAIL NO. EL 897872305US**

**Figure 1**

1 CCGGTGCCAG CCCAGGTGCT CGCGGCCCTGG CTCCATGGCC CTGGTCACAG TGAGCCGTT  
61 GCCCCCCGGGC AGCGGCGCCT CCACGCCGT GGGGCCCTGG GACCAGGCGG TCCAGCGAAG  
121 GAGTCGACTC CAGCGAAGGC AGAGCTTGC GGTGCTCCGT GGGGCTGTCC TGGGACTGCA  
181 GGATGGAGGG GACAATGATG ATGCAGCAGA GGCCAGTTCT GAGCCAACAG AGAAGGCC  
241 GAGTGAGGAG GAGCTCCACG GGGACCAGAC AGACTTCGGG CAAGGATCCC AGAGTCCCC  
301 GAAGCAGGAG GAGCAGAGGC AGCACCTGCA CCTCATGGTA CAGCTGCTGA GGCCGCAGGA  
361 TGACATCCGC CTGGCAGCCC AGCTGGAGGC ACCCCGGCCT CCCCGGCTCC GCTACCTGCT  
421 GGTAGTTCT ACACGAGAAG GAGAAGGTCT GAGCCAGGAT GAGACGGTCC TCCTGGGCGT  
481 GGATTTCCCT GACAGCAGCT CCCCCAGCTG CACCCCTGGC CTGGTCTTGC CCCTCTGGAG  
541 TGACACCCAG GTGTACTTAG ATGGAGACGG GGGCTTCAGC GTGACGTCTG GTGGGCAAAG  
601 CCGGATCTTC AAGCCCATCT CCATCCAGAC CATGTGGGCC ACACTCCAGG TATTGCACCA  
661 AGCATGTGAG GCAGCTCTAG GCAGCGGCCT TGTACCGGGT GGCAGTGCCT TCACCTGGGC  
721 CAGCCACTAC CAGGAGAGAC TGAACCTCCGA ACAGAGCTGC CTCAATGAGT GGACGGCTAT  
781 GGCCGACCTG GAGTCTCTGC GGCCTCCCAG CGCCGAGCCT GGCGGGTCT CAGAACAGGA  
841 GCAGATGGAG CAGGCGATCC GTGCTGAGCT GTGGAAAGTG TTGGATGTCA GTGACCTGGA  
901 GAGTGTCACT TCCAAAGAGA TCCGCCAGGC TCTGGAGCTG CGCCTGGGGC TCCCCCTCCA  
961 GCAGTACCGT GACTTCATCG ACAACCAGAT GCTGCTGCTG GTGGCACAGC GGGACCGAGC  
1021 CTCCCGCATC TTCCCCCACC TCTACCTGGG CTCAGAGTGG AACGCAGCAA ACCTGGAGGA  
1081 GCTGCAGAGG AACAGGGTCA CCCACATCTT GAACATGGCC CGGGAGATTG ACAACTTCTA  
1141 CCCTGAGCGC TTACCTTACCA ACAATGTGCG CCTCTGGGAT GAGGAGTCGG CCCAGCTGCT  
1201 GCCGCACTGG AAGGAGACGC ACCGCTTCAT TGAGGCTGCA AGAGCACAGG GCACCCACGT  
1261 GCTGGTCCAC TGCAAGATGG GCGTCAGCCG CTCAGGGCC ACAGTGTGCG CCTATGCCAT  
1321 GAAGCAGTAC GAATGCAGCC TGGAGCAGGC CCTGCCAC GTGCAGGAGC TCCGGCCCAT  
1381 CGCCCGCCCC AACCCCTGGCT TCCTGCCA GCTGCAGATC TACCAGGGCA TCCTGACGGC  
1441 CAGCCGCCAG AGCCATGTCT GGGAGCAGAA AGTGGGTGGG GTCTCCCCAG AGGAGCACCC  
1501 AGCCCCCTGAA GTCTCTACAC CATTCCCACC TCTTCCGCCA GAACCTGAGG GTGGTGGGGA  
1561 GGAGAAGGTT GTAGGCATGG AAGAGAGCCA GGCAGCCCCG AAAGAAGAGC CTGGGCCACG  
1621 GCCACGTATA AACCTCCGAG GGGTCATGAG GTCCATCAGT CTTCTGGAGC CCTCCTTGG  
1681 GCTGGAGAGC ACCTCAGAGA CCAGTGACAT GCCAGAGGTC TTCTCTTCCC ACGAGTCTC  
1741 ACATGAAGAG CCTCTGCAGC CCTTCCCACA GCTTGCAAGG ACCAAGGGAG GCCAGCAGGT  
1801 GGACAGGGGG CCTCAGCCTG CCCTGAAGTC CCGCCAGTCA GTGGTTACCC TCCAGGGCAG  
1861 TGCCGTGGTG GCCAACCGGA CCCAGGCCCT CCAGGAGCAG GAGCAGGGGC AGGGGCAGGG  
1921 GCAGGGAGAG CCCTGCATT CCTCTACGCC CAGGTTCCGG AAGGTGGTGA GACAGGCCAG  
1981 CGTGCATGAC AGTGGAGAGG AGGGCGAGGC CTGAGCCCTC ACACATGCC ACGCTCCCT  
2041 GACACTGAAG AGGATCCACA ACTCCTTGG AAAACACCC CACGTCTGTT GCCGCACACA  
2101 TTCCCTCTCAG CTCCGCCCA TACCCGTAC TACAGCCTCA CCTCCACCC CTGTCACTAC  
2161 GCCCTCACCT CCCACCCCTG TCACTACAGC CTCACCTCCT ACAGCCTAA GTCCCAGGCC  
2221 CATGTCTGCC TGTCCAAGGG CTCAAGACTT TCTAACTGGG ATGTGGTAGA GGGACTGAAG  
2281 GTACCTTGG GGGCAACAGC ACCCTAGTTT CATTCTCAAC TCTAGCCCTG CACACTCACC  
2341 TGTGGCACGG AATGAAAACA GAGCTTCCCG TGCAAAAGG GTCACGCCCT CCACCCCCGC  
2401 CCCCTCCCTG CACCTCCTGT CCTCTCCCAG TTCATTCCGT GAACCAGCCA GGCCAGGCAA  
2461 CCACTGGCCC CCAAAGGCAG GCAGGATCCT CAGGCCAG CCGCGGGAGG CTGGAAGGGC  
2521 TGGCAGATCG CTTCCCTCAT CCACCTCCAC CGGTCCAGGT CTTTGCTGCT GTCCCCAGAC  
2581 CTCCTGTGAC ACCACGCCAG ATCACAGGGC ACCAGGCCAG AGATAGTCTT CTTTTGTCC  
2641 TTTCTGGCCT CTGGCTAGTC AGTTTTCAT AGCCTTACAG TATCTGGCTT TGTACTGAGA  
2701 AATAAAACAC ATTTTCAT

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Figure 2

MALVTVSRSPPGSGASTPVGPWDQAVQRRSLQRRQFAVLRGAVLGLQDGKDNDAAEASSEPTEKAPSEEELHGD  
QTDFGQGSQSPQKQEEQRQHLHLMQLLRPQDDIRLAAQLEAPRPPRLRYLLVVSTREGEGLSQDETVLLGVDFPDS  
SSPSCTLGLVPLWSDTQVYLDGDGGFSVTSGGQSRIFKPISIQTMWATLQVLHQACEAALGSGLVPGGSALTWASH  
YQERLNSEQSCLNEWTAMADLESLRPPSAEPGGSSEQEQMEQAIRAELWKVLDVSDLESVTSKEIRQALERLGLPL  
QQYRDFIDNQMLLLVAQRDRASRIFPHLYLGSEWNAANLEELQRNRVTHILNMAREIDNFYPERFTYHNVRLWDEES  
AQLLPHWKETHRFIEAARAQGTHVLVHCKMGVSRSAATVLAYAMKQYECLEQALRHVQELRPIARPNGFLRQLQI  
YQGILTASRQSHVWEQKVGGVSPEEHPAPEVSTPFPLPPEPEGGEEKVVGMEESQAAPKEEPGPRPRINLRGVMR  
SISLLEPSLELESTSETSDMPEVFSSHESSHEEPLQPFQLARTKGGQQVDRGPQPALKSRSQSVTLQGSAVVANRT  
QAFQEQQEQGQGQGEPCISSTPRFRKVRQASVHDSGEEGEA

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**Figure 4**

1 CCGGTGCCAG CCCAGGTGCT CGCGGCCCTGG CTCCATGGCC CTGGTCACAG TGAGCCGTT  
61 GCCCCCCGGGC AGCGGCGCCT CCACGCCCGT GGGGCCCTGG GACCAGGCGG TCCAGCGAAG  
121 GAGTCGACTC CAGCGAAGGC AGAGCTTGC GGTGCTCCGT GGGGCTGTCC TGGGACTGCA  
181 GGATGGAGGG GACAATGATG ATGCAGCAGA GGCCAGTTCT GAGCCAACAG AGAAGGCCCC  
241 GAGTGAGGAG GAGCTCCACG GGGACCAGAC AGACTTCGGG CAAGGATCCC AGAGTCCCCA  
301 GAAGCAGGAG GAGCAGAGGC AGCACCTGCA CCTCATGGTA CAGCTGCTGA GGCCGCAGGA  
361 TGACATCCGC CTGGCAGCCC AGCTGGAGGC ACCCCGGCCT CCCCGGCTCC GCTACCTGCT  
421 GGTAGTTCT ACACGAGAAG GAGAAGGTCT GAGCCAGGAT GAGACGGTCC TCCTGGCGT  
481 GGATTTCCCT GACAGCAGCT CCCCGAGCTG CACCCCTGGG CTGGTCTTGC CCCTCTGGAG  
541 TGACACCCAG GTGTACTTAG ATGGAGACGG GGGCTTCAGC GTGACGTCTG GTGGCAAAG  
601 CCGGATCTTC AAGCCCATCT CCATCCAGAC CATGTGGGCC ACACTCCAGG TATTGCACCA  
661 AGCATGTGAG GCAGCTCTAG GCAGCGGCCT TGTACCGGGT GGCAGTGCC TCACCTGGC  
721 CAGCCACTAC CAGGAGAGAC TGAACCTCGA ACAGAGCTGC CTCAATGAGT GGACGGCTAT  
781 GGCGGACCTG GAGTCTCTGC GGCCTCCCAG CGCCGAGCCT GGCGGGTCCT CAGAACAGGA  
841 GCAGATGGAG CAGGCGATCC GTGCTGAGCT GTGGAAAGTG TTGGATGTCA GTGACCTGGA  
901 GAGTGTCACT TCCAAAGAGA TCCGCCAGGC TCTGGAGCTG CGCCTGGGGC TCCCCCTCCA  
961 GCAGTACCGT GACTTCATCG ACAACCAGAT GCTGCTGCTG GTGGCACAGC GGGACCGAGC  
1021 CTCCCGCATC TTCCCCCACC TCTACCTGGG CTCAGAGTGG AACGCAGCAA ACCTGGAGGA  
1081 GCTGCAGAGG AACAGGGTCA CCCACATCTT GAACATGGCC CGGGAGATTG ACAACTTCTA  
1141 CCCTGAGCGC TTACCTTACCA ACAATGTGCG CCTCTGGAT GAGGAGTCGG CCCAGCTGCT  
1201 GCCGCACTGG AAGGAGACGC ACCGCTTCAT TGAGGCTGCA AGAGCACAGG GCACCCACGT  
1261 GCTGGTCCAC TGCAAGATGG GCGTCAGCCG CTCAGCGGCC ACAGTGCTGG CCTATGCCAT  
1321 GAAGCAGTAC GAATGCAGCC TGGAGCAGGC CCTGCGCCAC GTGCAGGAGC TCCGGCCCAT  
1381 CGCCCGCCCC AACCTGGCT TCCTGCGCCA GCTGCAGATC TACCAGGGCA TCCTGACGGC  
1441 CAGAACTGA GGGTGGTGGG GAGGAGAAGG TTGTAGGCAT GGAAGAGAGC CAGGCAGCCC  
1501 CGAAAGAAGA GCCTGGGCCA CGGCCACGTA TAAACCTCG AGGGGTATG AGGTCCATCA  
1561 GTCTTCTGGA GCCCTCCTTG GAGCTGGAGA GCACCTCAGA GACCAAGTGC ATGCCAGAGG  
1621 TCTTCTCTTC CCACGAGTCT TCACATGAAG AGCCTCTGCA GCCCTTCCA CAGCTTGCAA  
1681 GGACCAAGGG AGGCCAGCAG GTGGACAGGG GGCCTCAGCC TGCCCTGAAG TCCCGCCAGT  
1741 CAGTGGTTAC CCTCCAGGGC AGTGCCGTGG TGGCCAACCG GACCCAGGCC TTCCAGGAGC  
1801 AGGAGCAGGG GCAGGGCAG GGGCAGGGAG AGCCCTGCAT TTCTCTACG CCCAGGTTCC  
1861 GGAAGGTGGT GAGACAGGCC AGCGTGCATG ACAGTGGAGA GGAGGGCGAG GCCTGAGCCC  
1921 TCACACATGC CCACGCTCCC CTGACACTGA AGAGGATCCA CAACTCCTTG GAGAAACACC  
1981 CTCACGTCTG TTGCCGCACA CATT CCTCTC AGCTCCGCC CATAACCGTC ACTACAGCCT  
2041 CACCTCCCAC CCCTGTCACT ACGGCCTCAC CTCCCACCCC TGTCACTACA GCCTCACCTC  
2101 CTACAGCCTT AAGTCCCAGG CCCATGTCTG CCTGTCCAAG GGCTCAAGAC TTTCTAACTG  
2161 GGATGTGGTA GAGGGACTGA AGGTACCTTT GGGGCAACA GCACCTAGT TTCATTCTCA  
2221 ACTCTAGCCC TGCACACTCA CCTGTGGCAC GGAATGAAAA CAGAGCTTCC CGTGCAAAAA  
2281 GGGTCACGCC TCCCACCCCC GCCCCCTCCC TGACCTCCT GTCCTCTCCC AGTTCATTC  
2341 TGGAACCAAGC CAGGCCAGGC AACCAAGTGGC CCCCAAAGGC AGGCAGGATC CTCAGGCC  
2401 AGCCGCGGGGA GGCTGGAAGG GCTGGCAGAT CGCTTCCCTC ATCCACCTCC ACCGGTCCAG  
2461 GTCTTGTCTG CTGTCCCCAG ACCTCCTGTG ACACCACGCC AGATCACAGG GCACCAGGCC  
2521 AGAGATAGTC TTCTTTGT CCTTCTGGC CTCTGGCTAG TCAGTTTTC ATAGCCTTAC  
2581 AGTATCTGGC TTTGTACTGA GAAATAAAAC ACATTTC

# Figure 5

MALVTVSRSPPSGASTPVGPWDQAVQRRSRLQRRQSFAVLRGAVLGLQDGGDNDDAAEASSEPTEKAPSEEELHGD  
QTDFGQGSQSPQKQEEQRQHLHLMVQLLRPQDDIRLAAQLEAPRPPRLRYLLVVSTREGEGLSQDETVLLGVDFPDS  
SSPSCTLGLVPLWSDTQVYLDGDGGFSVTSGGQSRIFKPISIQTMWATLQVLHQACEAALGSGLVPGGSALTWASH  
YQERLNSEQSCLNEWTAMADLESLRPPSAEPGGSSEQEQMEQAIRAELWKVLDVSDLESVTSKEIRQALELRLGLPL  
QQYRDFIDNQMLLVAQRDRASRIFPHYLGSEWNAANLEELQQRNRTVHILNMAREIDNFYPERFTYHNVRLWDEES  
AQLLPHWKETHRFIEAARAQGTHVLVHCKMGVRSAAATVLAYAMKQYECLEQALRHVQELRPIARPNPGFLRQLQI  
YQGILTART

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